

IN THE CLAIMS:

22-23. (Cancelled)

24. (New) A device for moving charged particles through a medium employing an electrical field, said device comprising:

an organic polymer solid substrate having an upper surface;
a main trench in the organic polymer solid substrate extending downward from said upper surface;
a plurality of branch trenches connected to said main trench for moving charged particles into and out of said main trench;

a plurality of electrodes positioned to be in electrical contact with a medium when present in said trenches, the plurality of electrodes being connected to an electronic computer programmed to sequentially activate electrodes to provide a voltage profile along the main trench to move charged particles; and

an optical detection device for detecting the charged particles in the main trench, the optical detection device interacting with the electronic computer so that the electronic computer adjusts the voltage profile in the main trench to resolve different species of the charged particles being moved.

25. (New) The device of claim 24 wherein said optical detection device is an ultraviolet or fluorescence spectrometer.

26. (New) The device of claims 24 or 25 wherein said organic polymer solid substrate is polymethylmethacrylate, polycarbonate, polyethylene terephthalate, or polystyrene.

27. (New) The device of claim 26 wherein said organic polymer solid substrate has a substantially uncharged surface.

28. (New) The device of claim 26 wherein said main trench has capillary dimensions.

29. (New) The device of claim 26 wherein said organic polymer solid substrate is polymethylmethacrylate.